

SEQ LIST 886 WO (UBP8rp).txt
SEQUENCE LISTING

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<120> NOVEL UBP8rp POLYPEPTIDES AND THEIR USE IN THE TREATMENT OF PSORIASIS

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<170> PatentIn version 3.1

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt

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SEQ LIST 886 WO (UBP8rp).txt
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Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Gly Gly Tyr Lys Asn Trp
260 265 270
Phe Leu Cys Tyr Ser Gln Tyr Thr Thr Asn Ala Lys Val Thr Pro Pro
275 280 285
Pro Gln His Gln Asn Glu Glu Leu Ser Ile Ser Leu Asp Phe Thr Tyr
290 295 300
Pro Ser Leu Glu Glu Ser Ile Pro Ser Lys Pro Ala Ala Glu Met Pro
305 310 315 320
Pro Pro Pro Ile Lys Val Asp Glu Asp Ile Glu Leu Ile Ser Asp Gln
325 330 335
Ile Ser Asp Asn Asp Gln Asn Glu Arg Thr Gly Pro Leu Asn Ile Ser
340 345 350
Ile Pro Val Glu Ser Val Ala Ala Ser Lys Ser Asp Val Ser Pro Ile
355 360 365
Ile Gln Pro Val Pro Ser Ile Lys Asn Val Pro Gln Ile Asp His Thr
370 375 380
Lys Lys Leu Ala Val Lys Leu Pro Glu Glu His Ile Ile Lys Ser Glu
385 390 395 400
Ser Thr Asn His Glu Gln Gln Ser Pro Gln Asn Glu Lys Val Ile Pro
405 410 415
Asp Cys Ser Thr Lys Pro Val Val Ser Ser Pro Thr Leu Met Leu Thr
420 425 430
Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu Leu Met Glu
435 440 445

SEQ LIST 886 WO (UBP8rp).txt

Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln Gly Lys Gln
450 455 460

Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln Lys Glu Thr
465 470 475 480

Arg Ser

<210> 4
<211> 1118
<212> PRT
<213> Homo sapiens

<400> 4

Met Pro Ala Val Ala Ser Val Pro Lys Glu Leu Tyr Leu Ser Ser Ser
1 5 10 15

Leu Lys Asp Leu Asn Lys Lys Thr Glu Val Lys Pro Glu Lys Ile Ser
20 25 30

Thr Lys Ser Tyr Val His Ser Ala Leu Lys Ile Phe Lys Thr Ala Glu
35 40 45

Glu Cys Arg Leu Asp Arg Asp Glu Glu Arg Ala Tyr Val Leu Tyr Met
50 55 60

Lys Tyr Val Thr Val Tyr Asn Leu Ile Lys Lys Arg Pro Asp Phe Lys
65 70 75 80

Gln Gln Gln Asp Tyr Phe His Ser Ile Leu Gly Pro Gly Asn Ile Lys
85 90 95

Lys Ala Val Glu Glu Ala Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg
100 105 110

Tyr Glu Glu Ala Glu Val Arg Lys Lys Leu Glu Glu Lys Asp Arg Gln
115 120 125

Glu Glu Ala Gln Arg Leu Gln Gln Lys Arg Gln Glu Thr Gly Arg Glu
130 135 140

Asp Gly Gly Thr Leu Ala Lys Gly Ser Leu Glu Asn Val Leu Asp Ser
145 150 155 160

Lys Asp Lys Thr Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu
165 170 175

Thr Lys Glu Lys Gly Ala Ile Thr Ala Lys Glu Leu Tyr Thr Met Met

SEQ LIST 886 WO (UBP8rp).txt
185 190

Thr Asp Lys Asn Ile Ser Leu Ile Ile Met Asp Ala Arg Arg Met Gln
195 200 205

Asp Tyr Gln Asp Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Glu
 210 215 220

Ala Ile Ser Pro Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro
225 230 235 240

Asp Asp Ser Lys Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Val
245 250 255

Val Leu Leu Asp Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr
260 265 270

Thr Leu Arg Ser Leu Lys Asp Ala Leu Phe Lys Trp Glu Ser Lys Thr
275 280 285

Val Leu Arg Asn Glu Pro Leu Val Leu Glu Gly Gly Tyr Glu Asn Trp
290 295 300

Leu Leu Cys Tyr Pro Gln Tyr Thr Thr Asn Ala Lys Val Thr Pro Pro
305 310 315 320

Pro Arg Arg Gln Asn Glu Glu Val Ser Ile Ser Leu Asp Phe Thr Tyr
 325 330 335

Pro Ser Leu Glu Glu Ser Ile Pro Ser Lys Pro Ala Ala Gln Thr Pro
 . 340 345 350

Pro Ala Ser Ile Glu Val Asp Glu Asn Ile Glu Leu Ile Ser Gly Gln
 355 360 365

Asn Glu Arg Met Gly Pro Leu Asn Ile Ser Thr Pro Val Glu Pro Val
370 375 380

Ala Ala Ser Lys Ser Asp Val Ser Pro Ile Ile Gln Pro Val Pro Ser
385 390 395 400

Ile Lys Asn Val Pro Gln Ile Asp Arg Thr Lys Lys Pro Ala Val Lys
105 410 415

Leu Pro Glu Glu His Arg Ile Lys Ser Glu Ser Thr Asn His Glu Gln
120 125 430

Gln Ser Pro Gln Ser Gly Lys Val Ile Pro Asp Arg Ser Thr Lys Pro

SEQ LIST 886 WO (UBP8rp).txt
435 440 445

Val Val Phe Ser Pro Thr Leu Met Leu Thr Asp Glu Glu Lys Ala Arg
450 455 460

Ile His Ala Glu Thr Ala Leu Leu Met Glu Lys Asn Lys Gln Glu Lys
465 470 475 480

Glu Leu Arg Glu Arg Gln Gln Glu Glu Gln Lys Glu Lys Leu Arg Lys
485 490 495

Glu Glu Gln Glu Gln Lys Ala Lys Lys Lys Gln Glu Ala Glu Glu Asn
500 505 510

Glu Ile Thr Glu Lys Gln Gln Lys Ala Lys Glu Glu Met Glu Lys Lys
515 520 525

Glu Ser Glu Gln Ala Lys Lys Glu Asp Lys Glu Thr Ser Ala Lys Arg
530 535 540

Gly Lys Glu Ile Thr Gly Val Lys Arg Gln Ser Lys Ser Glu His Glu
545 550 555 560

Thr Ser Asp Ala Lys Lys Ser Val Glu Asp Arg Gly Lys Arg Cys Pro
565 570 575

Thr Pro Glu Ile Gln Lys Lys Ser Thr Gly Asp Val Pro His Thr Ser
580 585 590

Val Thr Gly Asp Ser Gly Ser Gly Lys Pro Phe Lys Ile Lys Gly Gln
595 600 605

Pro Glu Ser Gly Ile Leu Arg Thr Gly Thr Phe Arg Glu Asp Thr Asp
610 615 620

Asp Thr Glu Arg Asn Lys Ala Gln Arg Glu Pro Leu Thr Arg Ala Arg
625 630 635 640

Ser Glu Glu Met Gly Arg Ile Val Pro Gly Leu Pro Ser Gly Trp Ala
645 650 655

Lys Phe Leu Asp Pro Ile Thr Gly Thr Phe Arg Tyr Tyr His Ser Pro
660 665 670

Thr Asn Thr Val His Met Tyr Pro Pro Glu Met Ala Pro Ser Ser Ala
675 680 685

Pro Pro Ser Thr Pro Pro Thr His Lys Ala Lys Pro Gln Ile Pro Ala

SEQ LIST 886 WO (UBP8rp).txt
690 695 700

Glu Arg Asp Arg Glu Pro Ser Lys Leu Lys Arg Ser Tyr Ser Ser Pro
705 710 715 720

Asp Ile Thr Gln Ala Ile Gln Glu Glu Glu Lys Arg Lys Pro Thr Val
725 730 735

Thr Pro Thr Val Asn Arg Glu Asn Lys Pro Thr Cys Tyr Pro Lys Ala
740 745 750

Glu Ile Ser Arg Leu Ser Ala Ser Gln Ile Arg Asn Leu Asn Pro Val
755 760 765

Phe Gly Gly Ser Gly Pro Ala Leu Thr Gly Leu Arg Asn Leu Gly Asn
770 775 780

Thr Cys Tyr Met Asn Ser Ile Leu Gln Cys Leu Cys Asn Ala Pro His
785 790 795 800

Leu Ala Asp Tyr Phe Asn Arg Asn Cys Tyr Gln Asp Asp Ile Asn Arg
805 810 815

Ser Asn Leu Leu Gly His Lys Gly Glu Val Ala Glu Glu Phe Gly Ile
820 825 830

Ile Met Lys Ala Leu Trp Thr Gly Gln Tyr Arg Tyr Ile Ser Pro Lys
835 840 845

Asp Phe Lys Ile Thr Ile Gly Lys Ile Asn Asp Gln Phe Ala Gly Tyr
850 855 860

Ser Gln Gln Asp Ser Gln Glu Leu Leu Leu Phe Leu Met Asp Gly Leu
865 870 875 880

His Glu Asp Leu Asn Lys Ala Asp Asn Arg Lys Arg Tyr Lys Glu Glu
885 890 895

Asn Asn Asp His Leu Asp Asp Phe Lys Ala Ala Glu His Ala Trp Gln
900 905 910

Lys His Lys Gln Leu Asn Glu Ser Ile Ile Val Ala Leu Phe Gln Gly
915 920 925

Gln Phe Lys Ser Thr Val Gln Cys Leu Thr Cys His Lys Lys Ser Arg
930 935 940

Thr Phe Glu Ala Phe Met Tyr Leu Ser Leu Pro Leu Ala Ser Thr Ser

SEQ LIST 886 WO (UBP8rp).txt

945

950

955

960

Lys Cys Thr Leu Gln Asp Cys Leu Arg Leu Phe Ser Lys Glu Glu Lys
965 970 975

Leu Thr Asp Asn Asn Arg Phe Tyr Cys Ser His Cys Arg Ala Arg Arg
980 985 990

Asp Ser Leu Lys Lys Ile Glu Ile Trp Lys Leu Pro Pro Val Leu Leu
995 1000 1005

Val His Leu Lys Arg Phe Ser Tyr Asp Gly Arg Trp Lys Gln Lys
1010 1015 1020

Leu Gln Thr Ser Val Asp Phe Pro Leu Glu Asn Leu Asp Leu Ser
1025 1030 1035

Gln Tyr Val Ile Gly Pro Lys Asn Asn Leu Lys Lys Tyr Asn Leu
1040 1045 1050

Phe Ser Val Ser Asn His Tyr Gly Gly Leu Asp Gly Gly His Tyr
1055 1060 1065

Thr Ala Tyr Cys Lys Asn Ala Ala Arg Gln Arg Trp Phe Lys Phe
1070 1075 1080

Asp Asp His Glu Val Ser Asp Ile Ser Val Ser Ser Val Lys Ser
1085 1090 1095

Ser Ala Ala Tyr Ile Leu Phe Tyr Thr Ser Leu Gly Pro Arg Val
1100 1105 1110

Thr Asp Val Ala Thr
1115

<210> 5
<211> 29
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 5
atgatgagag ctcacatgtt tgtttacaa

29

<210> 6
<211> 24
<212> DNA
<213> Artificial

SEQ LIST 886 WO (UBP8rp).txt
<220>
<223> /note="Description of artificial sequence: primer"

<400> 6
tttcaagaat tgtgttgctg agcc

24

<210> 7
<211> 30
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 7
gctcacatgt ttgtttacaa ggaacttaaa

30

<210> 8
<211> 26
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 8
tgcctacatc agttactcat ggtccc

26

<210> 9
<211> 22
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 9
gtttgtttac aaggaactta aa

22

<210> 10
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 10
gatttcaaggc aacagcagt

19

<210> 11
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 11

SEQ LIST 886 WO (UBP8rp).txt

gaaagatgca ctttcaagt 20

<210> 12
<211> 22
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 12
aagagttgtc tatctcattg ga 22

<210> 13
<211> 22
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 13
gaccatgagt aactgatgta gg 22

<210> 14
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 14
catggtccca aagaagtat 19

<210> 15
<211> 17
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 15
aaaccacccgc tgttttg 17

<210> 16
<211> 21
<212> DNA
<213> Artificial

<220>
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<400> 16
tgaccttagc atttgttgc t 21

<210> 17

SEQ LIST 886 WO (UBP8rp).txt

<211> 20
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<220>
<223> /note="Description of artificial sequence: primer"

<400> 17
cttgaaaaagt gcattttca 20

<210> 18
<211> 18
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<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 18
ctgcctgtcc ttttcctc 18

<210> 19
<211> 21
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 19
gtgtgagctt ttttcatat g 21

<210> 20
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 20
cgtaaatgtc ttccctctgag 20

<210> 21
<211> 30
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 21
aagtgataat gatcaaaaatg agaggacagg 30

<210> 22
<211> 24
<212> DNA
<213> Artificial

SEQ LIST 886 WO (UBP8rp).txt

<220>
<223> /note="Description of artificial sequence: primer"

<400> 22
tgttccacca agccagtagt ttcc

24

<210> 23
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 23
acatcaaaaa agccactgg

19

<210> 24
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 24
cactgctagc tggattgaa

19

<210> 25
<211> 22
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 25
cctccccagat gattctatacg at

22

<210> 26
<211> 22
<212> DNA
<213> Artificial

<220>
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<400> 26
cacctataaaa agtggatgaa ga

22

<210> 27
<211> 21
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 27

SEQ LIST 886 WO (UBP8rp).txt
cagtagtttc ctctccaact c

21

<210> 28
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 28
gaggagggaa gaacacgag

19

<210> 29
<211> 26
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 29
gatacttaaa gaaataaaac tcaacg

26

<210> 30
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 30
ttccaaactg aaatgctct

19

<210> 31
<211> 17
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 31
tgcccttctt tgctgag

17

<210> 32
<211> 22
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 32
tgactgccag ttttttagta tg

22

<210> 33

SEQ LIST 886 WO (UBP8rp).txt

<211> 19
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<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 33
atctttcaga tgccagagt 19

<210> 34
<211> 18
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 34
ccttttagcca acatgctg 18

<210> 35
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 35
tcgtttagtt tctccagtg 19

<210> 36
<211> 22
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 36
cgagatgccca cctccaccta ta 22

<210> 37
<211> 23
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 37
tcagtggtcc tgtcctctca ttt 23

<210> 38
<211> 23
<212> DNA
<213> Artificial

SEQ LIST 886 WO (UBP8rp).txt

<220>
<223> /note="Description of artificial sequence: primer"

<400> 38
tgatcaaata agtgataatg atc 23

<210> 39
<211> 26
<212> DNA
<213> Artificial

<220>
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<400> 39
aattgatata ttcagtggtc ctgtcc 26

<210> 40
<211> 21
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 40
cgagatgcc a cttccaccta t 21

<210> 41
<211> 21
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 41
tctcattttg atcattatca c 21

.

<210> 42
<211> 19
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 42
agacaaggcca acatgctac 19

<210> 43
<211> 21
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 43

SEQ LIST 886 WO (UBP8rp).txt

21

tggtgacttt aaggctttt g

<210> 44
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 44
ctcacccgtc acaaaaagtc

20

<210> 45
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 45
gcttcttgcc atcctcatcc

20

<210> 46
<211> 19
<212> DNA
<213> Artificial

<220>
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<400> 46
cctgtgcttt tagtgcatc

19

<210> 47
<211> 20
<212> DNA
<213> Artificial

<220>
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<400> 47
gctgaagatt tcacagaaga

20

<210> 48
<211> 22
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 48
ctttcgtaaa acttagaact ca

22

<210> 49

SEQ LIST 886 WO (UBP8rp).txt

<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 49 20
cattgtggct ttgatttaca

<210> 50
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 50 20
gaaacaatag atgctggta

<210> 51
<211> 15
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 51 15
actgatggac atttg

<210> 52
<211> 1661
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1455)
<223>

<220>
<221> misc_feature
<223> First splice variant of allele A9.1

<400> 52 48
atg atg aga gct cac atg ttt gtt tac aag gaa ctt aaa caa att tac
Met Met Arg Ala His Met Phe Val Tyr Lys Glu Leu Lys Gln Ile Tyr
1 5 10 15
aag aaa aaa acc cat ccc cat caa aaa gtg ggc aaa gga tat aaa cag 96
Lys Lys Lys Thr His Pro His Gln Lys Val Gly Lys Tyr Lys Gln
20 25 30
aca ctt ctc aga gga aga cat tta cgt ggc caa gaa aca tat gaa aaa 144
Thr Leu Leu Arg Gly Arg His Leu Arg Gly Gln Glu Thr Tyr Glu Lys
35 40 45
aag ctc aca cac gta tat gaa aca cct gat ttc aag caa cag cag gat 192

SEQ LIST 886 WO (UBP8rp).txt

Lys Leu Thr His Val Tyr Glu Thr Pro Asp Phe Lys Gln Gln Gln Asp			
50	55	60	
tgc ttc cgt tca ata ctt gga cct gca aac atc aaa aaa gcc act gga			240
Cys Phe Arg Ser Ile Leu Gly Pro Ala Asn Ile Lys Lys Ala Thr Gly			
65	70	75	80
gaa act gaa cga ctc tct gaa agc ctt aaa cta aga tat gaa gaa gtt			288
Glu Thr Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg Tyr Glu Glu Val			
85	90	95	
gaa atc tgg aaa aaa ctt gag gaa aag gac agg cag ggg gaa gca cag			336
Glu Ile Trp Lys Lys Leu Glu Lys Asp Arg Gln Gly Glu Ala Gln			
100	105	110	
tgg cta caa caa aaa agg cag gaa aca gga aga gag gat ggc agc acg			384
Trp Ile Gln Gln Lys Arg Gln Glu Thr Gly Arg Glu Asp Gly Ser Thr			
115	120	125	
ttg gct aaa gat tct ttg gag att gta ttg gat tcc aaa gac aaa acc			432
Ieu Ala Lys Asp Ser Ieu Glu Ile Val Leu Asp Ser Lys Asp Lys Thr			
130	135	140	
caa aag agc aat ggt gaa aag aat gaa aaa tgt gag acc aaa gag aaa			480
Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu Thr Lys Glu Lys			
145	150	155	160
gga gca atc aca gca aag gaa cta tac aca atg atg gat aaa aac			528
Gly Ala Ile Thr Ala Lys Glu Ieu Tyr Thr Met Met Asp Lys Asn			
165	170	175	
atc agc ttg att ata atg cat gct caa aga atg cag tat tat cag gat			576
Ile Ser Ieu Ile Ile Met His Ala Gln Arg Met Gln Tyr Tyr Gln Asp			
180	185	190	
tcc tgt att tta cat tct ctc agt gtt cct gaa aaa gcc atc agt cca			624
Ser Cys Ile Leu His Ser Ieu Ser Val Pro Glu Lys Ala Ile Ser Pro			
195	200	205	
gga gtc act gct agc tgg att gaa gca cac ctc cca gat gat tct ata			672
Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile			
210	215	220	
gat aca tgg aag aag agg ggg aat gtg gag tat atg gta ctt ctt gac			720
Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp			
225	230	235	240
tgg ttt agt tct gca aaa gat tta cag att gga aca aca ctc tgg cat			768
Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His			
245	250	255	
ctg aaa gat gca ctt ttc aag tgg gaa aag gga ggc tat aaa aac tgg			816
Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Gly Gly Tyr Lys Asn Trp			
260	265	270	
ttc ttt tgc tat tcc cag tat aca aca aat gct aag gtc act cca ccc			864
Phe Phe Cys Tyr Ser Gln Tyr Thr Thr Asn Ala Lys Val Thr Pro Pro			
275	280	285	
cca caa cac cag aat gaa gag ttg tct atc tca ttg gat ttt act tat			912
Pro Gln His Gln Asn Glu Glu Leu Ser Ile Ser Leu Asp Phe Thr Tyr			
290	295	300	
ccc tca ttg gaa gaa tca att cct tct aaa cct gct gcc gag atg cca			960

SEQ LIST 886 WO (UBP8rp).txt

Pro Ser Leu Glu Glu Ser Ile Pro Ser Lys Pro Ala Ala Glu Met Pro		
305 310 315 320		
cct cca cct ata gaa gtg gat gaa gac ata gaa ttg ata agt gat caa		1008
Pro Pro Pro Ile Glu Val Asp Glu Asp Ile Glu Leu Ile Ser Asp Gln		
325 330 335		
ata agt gat aat gat caa aat gag agg aca gga cca ctg aat ata tca		1056
Ile Ser Asp Asn Asp Gln Asn Glu Arg Thr Gly Pro Leu Asn Ile Ser		
340 345 350		
att cca gtt gaa tca gtt gct gct tct aaa tct gat gtt tca ccc atc		1104
Ile Pro Val Glu Ser Val Ala Ala Ser Lys Ser Asp Val Ser Pro Ile		
355 360 365		
att cag cca gtg cct agc ata aag aat gtt cca cag att gat cat act		1152
Ile Gln Pro Val Pro Ser Ile Lys Asn Val Pro Gln Ile Asp His Thr		
370 375 380		
aaa aaa ctg gca gtc aaa ttg cct gaa gag cat ata atc aaa tct gaa		1200
Lys Lys Leu Ala Val Lys Leu Pro Glu Glu His Ile Ile Lys Ser Glu		
385 390 395 400		
agt aca aat cat gag caa cag tct cct cag aat gaa aaa gtt att cct		1248
Ser Thr Asn His Glu Gln Gln Ser Pro Gln Asn Glu Lys Val Ile Pro		
405 410 415		
gat tgt tcc gcc aag cca gta gtt tcc tct cca act ctc atg tta aca		1296
Asp Cys Ser Ala Lys Pro Val Val Ser Ser Pro Thr Leu Met Leu Thr		
420 425 430		
gat gaa gaa aag gct cat att cat gca gaa act gct ctt cta atg gag		1344
Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu Leu Met Glu		
435 440 445		
aaa aac aaa caa gaa aaa gaa ctt cag gaa aga cag caa ggg aaa cag		1392
Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln Gly Lys Gln		
450 455 460		
aaa gaa act gag gag gga aga aca cga gca aaa agc caa aaa gaa aca		1440
Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln Lys Glu Thr		
465 470 475 480		
aga agc tgc aga aaa tgaaattaca cagaagcaac aaaaagcaaa agaagaaatg		1495
Arg Ser Cys Arg Lys		
485		
gagaagaaag aacgtgaaca ggccaagaaa gaggataaag aaatctcagc aaagaagggc		1555
aaagaaaataa caagagtaaa aagacaaagt aaaagtgtatc atgaaacctc tggtgccgag		1615
aagtctgttag aggacagggg gagaagatgt tcaaccccag aagtac		1661
'		
<210> 53		
<211> 485		
<212> PRT		
<213> Homo sapiens		
<400> 53		
Met Met Arg Ala His Met Phe Val Tyr Lys Glu Leu Lys Gln Ile Tyr		
1 5 10 15		

SEQ LIST 886 WO (UBP8rp).txt

Lys Lys Lys Thr His Pro His Gln Lys Val Gly Lys Gly Tyr Lys Gln
20 25 30

Thr Leu Leu Arg Gly Arg His Leu Arg Gly Gln Glu Thr Tyr Glu Lys
35 40 45

Lys Leu Thr His Val Tyr Glu Thr Pro Asp Phe Lys Gln Gln Gln Asp
50 55 60

Cys Phe Arg Ser Ile Leu Gly Pro Ala Asn Ile Lys Lys Ala Thr Gly
65 70 75 80

Glu Thr Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg Tyr Glu Glu Val
85 90 95

Glu Ile Trp Lys Lys Leu Glu Glu Lys Asp Arg Gln Gly Glu Ala Gln
100 105 110

Trp Leu Gln Gln Lys Arg Gln Glu Thr Gly Arg Glu Asp Gly Ser Thr
115 120 125

Leu Ala Lys Asp Ser Leu Glu Ile Val Leu Asp Ser Lys Asp Lys Thr
130 135 140

Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu Thr Lys Glu Lys
145 150 155 160

Gly Ala Ile Thr Ala Lys Glu Leu Tyr Thr Met Met Met Asp Lys Asn
165 170 175

Ile Ser Leu Ile Ile Met His Ala Gln Arg Met Gln Tyr Tyr Gln Asp
180 185 190

Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Lys Ala Ile Ser Pro
195 200 205

Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile
210 215 220

Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp
225 230 235 240

Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His
245 250 255

Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Gly Gly Tyr Lys Asn Trp
260 265 270

SEQ LIST 886 WO (UBP8rp).txt

Phe Phe Cys Tyr Ser Gln Tyr Thr Thr Asn Ala Lys Val Thr Pro Pro
275 280 285

Pro Gln His Gln Asn Glu Glu Leu Ser Ile Ser Leu Asp Phe Thr Tyr
290 295 300

Pro Ser Leu Glu Glu Ser Ile Pro Ser Lys Pro Ala Ala Glu Met Pro
305 310 315 320

Pro Pro Pro Ile Glu Val Asp Glu Asp Ile Glu Leu Ile Ser Asp Gln
325 330 335

Ile Ser Asp Asn Asp Gln Asn Glu Arg Thr Gly Pro Leu Asn Ile Ser
340 345 350

Ile Pro Val Glu Ser Val Ala Ala Ser Lys Ser Asp Val Ser Pro Ile
355 360 365

Ile Gln Pro Val Pro Ser Ile Lys Asn Val Pro Gln Ile Asp His Thr
370 375 380

Lys Lys Leu Ala Val Lys Leu Pro Glu Glu His Ile Ile Lys Ser Glu
385 390 395 400

Ser Thr Asn His Glu Gln Gln Ser Pro Gln Asn Glu Lys Val Ile Pro
405 410 415

Asp Cys Ser Ala Lys Pro Val Val Ser Ser Pro Thr Leu Met Leu Thr
420 425 430

Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu Leu Met Glu
435 440 445

Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln Gly Lys Gln
450 455 460

Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln Lys Glu Thr
465 470 475 480

Arg Ser Cys Arg Lys
485

<210> 54
<211> 1735
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

SEQ LIST 886 WO (UBP8rp).txt

<223> Second splice variant of allele A9.1

<400> 54		
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catccccatc aaaaagtggg caaaggatat aaacagacac ttctcagagg aagacattta		120
cgtggccaag aaacatatga aaaaaagctc acacacgtat atgaaacgtg actgtttata		180
atccttatcca aaaaagacct gattcaagc aacagcagga ttgcttccgt tcaatacttg		240
gacctgattt caagcaacag caggattgct tccgttcaat acttggacct gcaaacatca		300
aaaaagccac tggagaaact gaacgactct ctgaaagcct taaactaaga tatgaagaag		360
ttgaaatctg gaaaaaactt gaggaaaagg acaggcaggg ggaagcacag tggctacaac		420
aaaaaggca ggaaacacgga agagaggatg gcagcacgtt ggctaaagat tctttggaga		480
ttgtatttggaa ttccaaagac aaaacccaaa agagcaatgg tgaaaagaat gaaaaatgtg		540
agaccaaaga gaaaggagca atcacagcaa aggaactata cacaatgtat atggataaaa		600
acatcagctt gattataatg catgctaaa gaatgcagta ttatcaggat tcctgtattt		660
tacattctct cagtgttcct gaaaaagcca tcagtcagg agtcactgct agctggattt		720
aagcacacacct cccagatgtat tctatagata catggaagaa gagggggaaat gtggagtata		780
tggtacttct tgactggttt agttctgaa aagatttaca gattggaaca acactctggc		840
atctgaaaga tgcacttttc aagtggaaa agggaggcta taaaaactgg ttctttgct		900
attcccagta tacaacaaat gctaaggta ctccacccccc acaacaccag aatgaagagt		960
tgtctatctc attggatttt acttatccct cattggaaga atcaattcct tctaaacctg		1020
ctgccagat gccacctcca cctatagaag tggatgaaaga catagaattt ataagtgtatc		1080
aaataagtga taatgatcaa aatgagagga caggaccact gaatatatca attccagttt		1140
aatcagttgc tgcttctaaa tctgatgtt cacccatcat tcagccagtg cctagcataa		1200
agaatgttcc acagattgtat catactaaaa aactggcagt caaattgcct gaagagcata		1260
taatcaaattc tgaaagtaca aatcatgagc aacagtctcc tcagaatgaa aaagttttc		1320
ctgattgttc cgccaagcca gtagtttcct ctccaactct catgttaaca gatgaagaaa		1380
aggctcatat tcatgcagaa actgcttttc taatggagaa aaacaaacaa gaaaaagaac		1440
ttcagggaaag acagcaaggg aaacagaaaag aaactgagga gggagaaca cgagcaaaaa		1500
gccaaaaaga aacaagaagc tgcagaaaat gaaattacac agaagcaaca aaaagcaaaa		1560
gaagaaaatgg agaagaaaaga acgtgaacag gccaagaaaag aggataaaga aatctcagca		1620
aagaaggcga aagaaaataac aagagtaaaa agacaaagta aaagtgtatca taaaacccct		1680
ggtgccgaga agtctgtaga ggacaggggg agaagatgtt caaccccaga agtac		1735

SEQ LIST 886 WO (UBP8rp).txt

<211> 1238
 <212> DNA
 <213> Homo sapiens

 <220>
 <221> misc_feature
 <223> Third splice variant of allele A9.1

 <220>
 <221> CDS
 <222> (1)..(1032)
 <223>

 <400> 55

atg	atg	aga	gct	cac	atg	ttt	gtt	tac	aag	gaa	ctt	aaa	caa	att	tac		48
Met	Met	Arg	Ala	His	Met	Phe	Val	Tyr	Lys	Glu	Leu	Lys	Gln	Ile	Tyr		
1					5				10					15			
aag	aaa	aaa	acc	cat	ccc	cat	caa	aaa	gtg	ggc	aaa	gga	tat	aaa	cag		96
Lys	Lys	Lys	Thr	His	Pro	His	Gln	Lys	Val	Gly	Lys	Gly	Tyr	Lys	Gln		
								20	25				30				
aca	ctt	ctc	aga	gga	aga	cat	tta	cgt	ggc	caa	gaa	aca	tat	gaa	aaa		144
Thr	Leu	Leu	Arg	Gly	Arg	His	Leu	Arg	Gly	Gln	Glu	Thr	Tyr	Glu	Lys		
								35	40			45					
aag	ctc	aca	cac	gta	tat	gaa	aca	cct	gat	ttc	aag	caa	cag	cag	gat		192
Lys	Leu	Thr	His	Val	Tyr	Glu	Thr	Pro	Asp	Phe	Lys	Gln	Gln	Gln	Asp		
								50	55			60					
tgc	ttc	cgt	tca	ata	ctt	gga	cct	gca	aac	atc	aaa	aaa	gcc	act	gga		240
Cys	Phe	Arg	Ser	Ile	Ieu	Gly	Pro	Ala	Asn	Ile	Lys	Lys	Ala	Thr	Gly		
								65	70			75			80		
gaa	act	gaa	cga	ctc	tct	gaa	agc	ctt	aaa	cta	aga	tat	gaa	gaa	gtt		288
Glu	Thr	Glu	Arg	Ieu	Ser	Glu	Ser	Ieu	Lys	Leu	Arg	Tyr	Glu	Glu	Val		
								85			90			95			
gaa	atc	tgg	aaa	aaa	ctt	gag	gaa	aag	gac	agg	cag	ggg	gaa	gca	cag		336
Glu	Ile	Trp	Lys	Lys	Ieu	Glu	Glu	Lys	Asp	Arg	Gln	Gly	Glu	Ala	Gln		
								100			105			110			
tgg	cta	caa	caa	aaa	agg	cag	gaa	aca	gga	aga	gag	gat	ggc	agc	acg		384
Trp	Ieu	Gln	Gln	Lys	Arg	Gln	Glu	Thr	Gly	Arg	Glu	Asp	Gly	Ser	Thr		
								115			120			125			
ttg	gct	aaa	gat	tct	ttg	gag	att	gta	ttg	gat	tcc	aaa	gac	aaa	acc		432
Leu	Ala	Lys	Asp	Ser	Leu	Glu	Ile	Val	Leu	Asp	Ser	Lys	Asp	Lys	Thr		
								130			135			140			
caa	aag	agc	aat	ggt	gaa	aag	aat	gaa	aaa	tgt	gag	acc	aaa	gag	aaa		480
Gln	Lys	Ser	Asn	Gly	Glu	Lys	Asn	Glu	Lys	Cys	Glu	Thr	Lys	Glu	Lys		
								145			150			155			160
gga	gca	atc	aca	gca	aag	gaa	cta	tac	aca	atg	atg	atg	gat	aaa	aac		528
Gly	Ala	Ile	Thr	Ala	Lys	Glu	Leu	Tyr	Thr	Met	Met	Met	Asp	Lys	Asn		
								165			170			175			
atc	agc	ttg	att	ata	atg	cat	gct	caa	aga	atg	cag	tat	tat	cag	gat		576
Ile	Ser	Leu	Ile	Ile	Met	His	Ala	Gln	Arg	Met	Gln	Tyr	Tyr	Gln	Asp		
								180			185			190			
tcc	tgt	att	tta	cat	tct	ctc	agt	gtt	cct	gaa	aaa	gcc	atc	agt	cca		624

SEQ LIST 886 WO (UBP8rp).txt

Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Lys Ala Ile Ser Pro			
195	200	205	
gga gtc act gct agc tgg att gaa gca cac ctc cca gat gat tct ata			672
Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile			
210	215	220	
gat aca tgg aag aag agg ggg aat gtg gag tat atg gta ctt ctt gac			720
Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp			
225	230	235	240
tgg ttt agt tct gca aaa gat tta cag att gga aca aca ctc tgg cat			768
Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His			
245	250	255	
ctg aaa gat gca ctt ttc aag tgg gaa aag tct cct cag aat gaa aaa			816
Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Ser Pro Gln Asn Glu Lys			
260	265	270	
gtt att cct gat tgt tcc gcc aag cca gta gtt tcc tct cca act ctc			864
Val Ile Pro Asp Cys Ser Ala Lys Pro Val Val Ser Ser Pro Thr Leu			
275	280	285	
atg tta aca gat gaa gaa aag gct cat att cat gca gaa act gct ctt			912
Met Leu Thr Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu			
290	295	300	
cta atg gag aaa aac aaa caa gaa aaa gaa ctt cag gaa aga cag caa			960
Leu Met Glu Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln			
305	310	315	320
ggg aaa cag aaa gaa act gag gag gga aga aca cga gca aaa agc caa			1008
Gly Lys Gln Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln			
325	330	335	
aaa gaa aca aga agc tgc aga aaa tgaaattaca cagaagcaac aaaaagcaaa			1062
Lys Glu Thr Arg Ser Cys Arg Lys			
340			
agaagaaaatg gagaagaaaag aacgtgaaca ggccaagaaa gaggataaag aaatctcagc			1122
aaagaaggc aaagaaaataa caagagtaaa aagacaaaagt aaaagtgatc atgaaacctc			1182
tggtgccgag aagtctgtag aggacagggg gagaagatgt tcaaccccag aagtac			1238
<210> 56			
<211> 344			
<212> PRT			
<213> Homo sapiens			
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Met Met Arg Ala His Met Phe Val Tyr Lys Glu Leu Lys Gln Ile Tyr			
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Lys Lys Lys Thr His Pro His Gln Lys Val Gly Lys Gly Tyr Lys Gln			
20	25	30	
Thr Leu Leu Arg Gly Arg His Leu Arg Gly Gln Glu Thr Tyr Glu Lys			
35	40	45	

SEQ LIST 886 WO (UBP8rp).txt

Lys Leu Thr His Val Tyr Glu Thr Pro Asp Phe Lys Gln Gln Gln Asp
 50 55 60

Cys Phe Arg Ser Ile Leu Gly Pro Ala Asn Ile Lys Lys Ala Thr Gly
 65 70 75 80

Glu Thr Glu Arg Leu Ser Glu Ser Leu Lys Leu Arg Tyr Glu Glu Val
 85 90 95

Glu Ile Trp Lys Lys Leu Glu Glu Lys Asp Arg Gln Gly Glu Ala Gln
 100 105 110

Trp Leu Gin Gln Lys Arg Gln Glu Thr Gly Arg Glu Asp Gly Ser Thr
 115 120 125

Leu Ala Lys Asp Ser Leu Glu Ile Val Leu Asp Ser Lys Asp Lys Thr
 130 135 140

Gln Lys Ser Asn Gly Glu Lys Asn Glu Lys Cys Glu Thr Lys Glu Lys
 145 150 155 160

Gly Ala Ile Thr Ala Lys Glu Leu Tyr Thr Met Met Met Asp Lys Asn
 165 170 175

Ile Ser Leu Ile Ile Met His Ala Gln Arg Met Gln Tyr Tyr Gln Asp
 180 185 190

Ser Cys Ile Leu His Ser Leu Ser Val Pro Glu Lys Ala Ile Ser Pro
 195 200 205

Gly Val Thr Ala Ser Trp Ile Glu Ala His Leu Pro Asp Asp Ser Ile
 210 215 220

Asp Thr Trp Lys Lys Arg Gly Asn Val Glu Tyr Met Val Leu Leu Asp
 225 230 235 240

Trp Phe Ser Ser Ala Lys Asp Leu Gln Ile Gly Thr Thr Leu Trp His
 245 250 255

Leu Lys Asp Ala Leu Phe Lys Trp Glu Lys Ser Pro Gln Asn Glu Lys
 260 265 270

Val Ile Pro Asp Cys Ser Ala Lys Pro Val Val Ser Ser Pro Thr Leu
 275 280 285

Met Leu Thr Asp Glu Glu Lys Ala His Ile His Ala Glu Thr Ala Leu
 290 295 300

SEQ LIST 886 WO (UBP8rp).txt

Leu Met Glu Lys Asn Lys Gln Glu Lys Glu Leu Gln Glu Arg Gln Gln
305 310 315 320

Gly Lys Gln Lys Glu Thr Glu Glu Gly Arg Thr Arg Ala Lys Ser Gln
325 330 335

Lys Glu Thr Arg Ser Cys Arg Lys
340

<210> 57
<211> 13
<212> PRT
<213> Artificial

<220>
<223> Immunogenic peptide

<400> 57

Gln Ile Ser Asp Asn Asp Gln Asn Glu Arg Thr Gly Pro
1 5 10

<210> 58
<211> 18
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 58
gccacagcag gcatgatg

18

<210> 59
<211> 15
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 59
caagtgcttc tttcc

15

<210> 60
<211> 20
<212> DNA
<213> Artificial

<220>
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<400> 60
tgcccatctc ccaagaactc

20

<210> 61

SEQ LIST 886 WO (UBP8rp).txt

<211> 23
<212> DNA
<213> Artificial

<220>
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<400> 61
atgaaggaga acttcccaa ctt 23

<210> 62
<211> 18
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 62
cttagtgccct gtgacaaa 18

<210> 63
<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 63
caaagacgtc ggcgaggtaa 20

<210> 64
<211> 20
<212> DNA
<213> Artificial

<220>
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<400> 64
gtcatcctgg agatcgacaa 20

<210> 65
<211> 17
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 65
gccaggctgg ctgcgga 17

<210> 66
<211> 20
<212> DNA
<213> Artificial

SEQ LIST 886 WO (UBP8rp).txt

<220>
<223> /note="Description of artificial sequence: primer"

<400> 66
gggccagctc attctcatac 20

<210> 67
<211> 26
<212> DNA
<213> Artificial

<220>
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<400> 67
agatgaggtc tcacttatca ggctgg 26

<210> 68
<211> 27
<212> DNA
<213> Artificial

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<400> 68
tctgtacttc tggggttgaa catcttc 27

<210> 69
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<212> DNA
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<400> 69
catgatgaga gctcacatgt ttg 23

<210> 70
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<212> DNA
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<400> 70
gccactggag aaactgaac 19

<210> 71
<211> 19
<212> DNA
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<220>
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<400> 71

SEQ LIST 886 WO (UBP8rp).txt

19

gcaatcacag caaaggaac

<210> 72
<211> 19
<212> DNA
<213> Artificial

<220>
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<400> 72
tttggtttta gagggaggc

19

<210> 73
<211> 20
<212> DNA
<213> Artificial

<220>
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<400> 73
taaatctgat gtttcaccca

20

<210> 74
<211> 19
<212> DNA
<213> Artificial

<220>
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<400> 74
gttcctttgc tgtgattgc

19

<210> 75
<211> 19
<212> DNA
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<220>
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<400> 75
acatcaaaaa agccactgg

19

<210> 76
<211> 19
<212> DNA
<213> Artificial

<220>
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<400> 76
tcgttcagtt tctccagtg

19

<210> 77

SEQ LIST 886 WO (UBP8rp).txt

<211> 20
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 77
gaaagatgca ctttcaagt 20

<210> 78
<211> 33
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 78
gatacatctg tacttctggg gttgaacatc ttc 33

<210> 79
<211> 31
<212> DNA
<213> Artificial

<220>
<223> /note="Description of artificial sequence: primer"

<400> 79
tctggatcca tgatgagagc tcacatgttt g 31